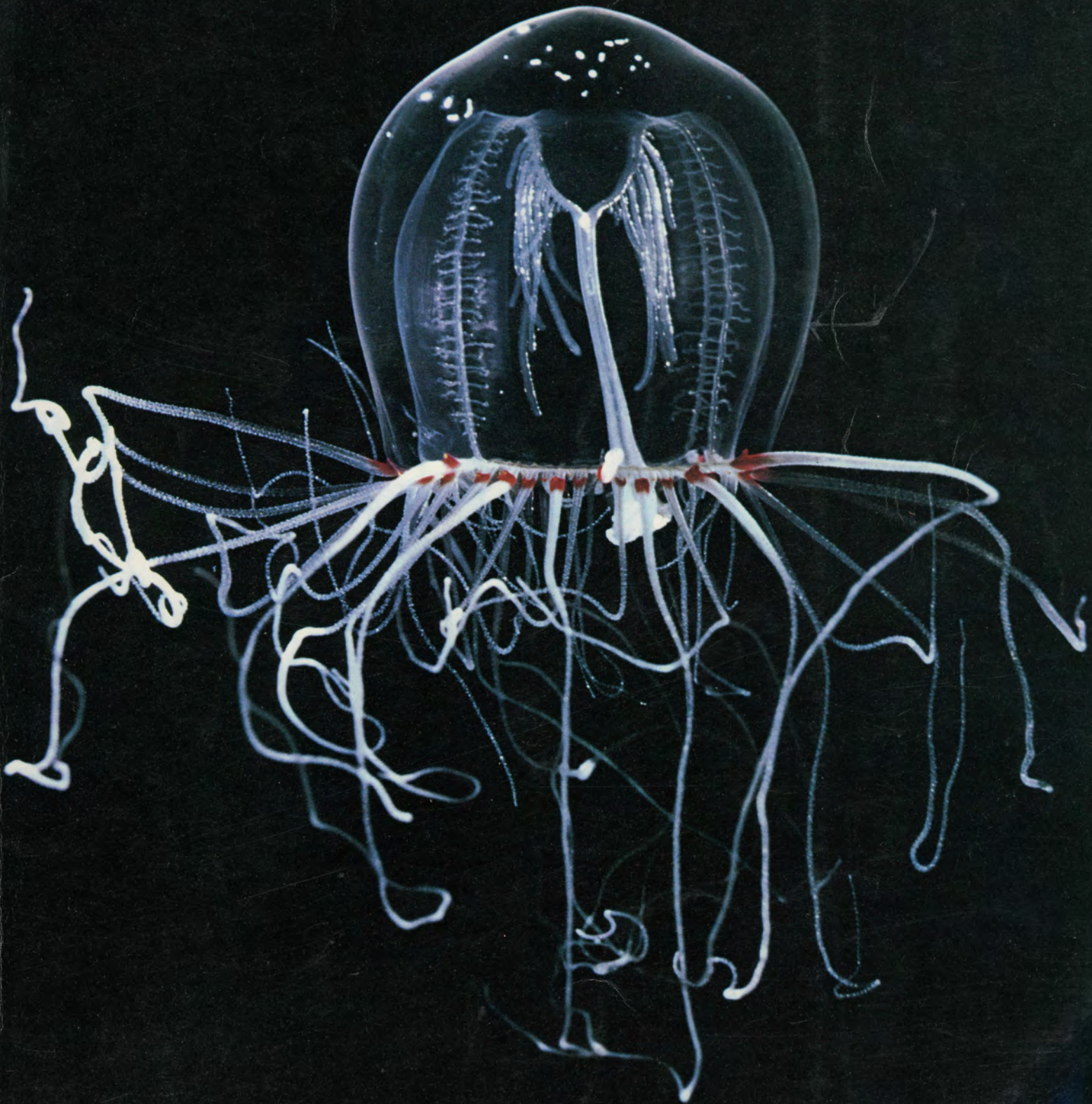


# Oceans

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WEST COAST \* MARINE ART \* CELESTIAL NAVIGATION \* 200-MILE LIMIT



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# THE SEALS OF SAN

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*Text and Photographs by*

*Peter C. Howorth*

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On San Miguel Island, only forty some miles west of Santa Barbara, California, is a seal rookery rivaled by no others in the continental United States. Here six species of pinnipeds (the Latin for "fin-footed ones") are found, representing a diversity unknown in other rookeries. The list includes the California sea lion, the harbor seal, the northern elephant seal, the Steller sea lion, the northern fur seal and, on rare occasions, the Guadalupe fur seal.

There are two major types of seals: the true or earless seals (*Phocidae*) and the eared seals (*Otariidae*). True seals are fatter than eared seals since they must rely solely upon their blubber for protection against the cold of the depths. Their short pelt traps air between hairs for insulation on land, but this is of little value in the water. Heat loss in cold water is controlled by the restriction of blood to the flippers, skin and blubber. Conversely, blood vessels can be dilated when the seal is warm. True seals have no external ears, only small openings on either side of the skull. Their fur-covered hind flippers are used for swimming. Eared seals, on the other hand, have dense fur which traps air even when it is wet. The northern species also have a layer of blubber for added protection against the cold. They swim with their foreflippers which are bare of fur. Small, tightly rolled cylinders of flesh serve as ears.

Considerable research has been conducted to determine whether or not seals use echolocation techniques in the same

manner as whales and porpoises. Information obtained so far indicates that they may indeed have such capabilities, but authorities are still not in complete agreement. Evidence that a seal's whiskers as well as its ears may be sound sensitive is also being investigated. It is thought that nerve endings at the base of the whiskers conduct not only disturbances in the water but sound vibrations as well.

The most common pinniped in the waters around the San Miguel rookery is the California sea lion, *Zalophus californianus*. This species varies in color from light tan to almost black; the pelt appears darker when wet. Males may reach a length of nearly eight feet and a weight of over 800 pounds, while the females seldom exceed six feet and 200 pounds. Large males are readily distinguished from other species by the prominent crest crowning their skull above the eyes. Often this crest is lighter in color than the rest of the pelt which merges gradually with the soft black skin of the flippers. Short stubby ears protrude from the head.

Probably the next most common seal in southern California waters is the harbor seal, *Phoca vitulina richardii*. Although harbor seals have no rookery at Point Bennett on San Miguel, they are found on both sides of the channel islands on small sandy beaches fringed with rocks. Harbor seals may be readily identified by their short mottled pelts which range in color from a beautiful silver gray to a light tan, with darker blotches of gray or brown

predominating on their backs. They also have very long whiskers. Although they lack external ears, they have discernible openings on the sides of their heads. The foreflippers are covered with fur and complemented with five long nails used for grasping, scratching and fighting. Males seldom grow to a length of more than five feet or weigh more than 200 pounds; however, in other parts of the world they may reach six feet and over 500 pounds in weight. Unlike the vociferous barking sea lions, harbor seals seldom make any noise at all. When they do, it is a high-pitched squeal.

On land harbor seals are skittish and will scurry into the water like giant inchworms at the slightest sign of danger. It is quite difficult to approach them when they are hauled out on shore, especially since they always have guards posted to warn the others of any possible intruders. In the water however, which is their natural element, they are insatiably curious. They often swim directly behind a diver, watching everything he does and even imitating his actions. Several times I have felt them nipping at my flippers or rubbing against me. One harbor seal, after following me for about an hour, allowed me to scratch its back and head and even peered directly into my face mask. Its eyes showed a comically frightened expression, although curiosity had certainly overcome its innate timidity. It also swam all the way into my diving bag to see what was there.

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# MIGUEL ISLAND

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*Creation of a pinniped sanctuary in  
Santa Barbara Channel Islands*

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But the real characters of the Point Bennett rookery are the northern elephant seals, *Mirounga angustirostris*. Readily identified by their gargantuan bulk, they are among the largest seals, exceeded only by the southern elephant seal (*Mirounga leonina*). Males may reach a length of over sixteen feet and weigh well over three tons. On some, the trunk-shaped nose is so long that it dangles inside the mouth. Elephant seals are capable of inflating this strange proboscis and uttering a noise best described as a cross between the sound of an unmuffled automobile and a horrendous belch. It can be heard for over a mile, even rising above the roar of the surf and the incessant din from the sea lions.

On the beach, elephant seals are relatively unperturbed by the intrusion of people, particularly if they crawl instead of walking. The seals spend much of their time sleeping in tight groups of a few dozen or so. They may frequently be seen flipping warm sand on their backs or snoring and sneezing in their sleep with appalling regularity and volume. Breaths are expelled with such enthusiasm that anything which ventures within a couple of feet is sandblasted.

Elephant seals have large dark eyes with huge pupils probably adapted for the dim light of deep water. They are excellent divers and are capable of staying under for considerable periods. Their pelt is a yellowish brown and, after molting, gray. The foreflippers are covered with hair and have five nailed digits.

During the breeding season, in the winter, bull elephant seals can often be seen fighting — standing on their foreflippers, chest to chest, and viciously striking at one another. Consequently, the larger bulls have a tremendous amount of scar tissue around their necks. At other times of the year it is amusing to watch young bulls engaging in mock combat. They seldom break the skin while they fight, though they often appear to be taking turns biting each other.

Unlike the bulls, females are rarely aggressive among themselves, though they will defend their pups from intruders. Once I witnessed a female elephant seal attack a photographer at the Coronado Island rookery off Baja California. She quietly interposed herself between him and her pup. As the man backed up, taking pictures, she struck his leg, tearing his wetsuit and badly bruising his flesh. The seal then retired to care for her pup, apparently satisfied with the rapid departure of the photographer. Fortunately the man suffered nothing more than a contused leg and an increased heartbeat.

The Steller sea lion, *Eumetopias jubata*, can be equally aggressive. On one occasion a large bull I was photographing snarled a warning at me. I foolishly paid no attention and inched closer over the rocks, keeping him in the viewfinder and clicking away. Finally, I was focusing on just his head and shoulders, a dangerous thing to do with a wide-angle lens. I kept

photographing, very excited at the opportunity of getting some close-ups of a Steller bull, when I suddenly heard a great bellying roar and saw only a blurred mass of teeth in the viewfinder. With the bull almost on top of me, I instinctively hugged the camera to my chest and somersaulted backward. Although I failed to see any humor in it, a friend watching me found my inglorious retreat hilarious.

Only a few Steller sea lions are found on San Miguel, since this island marks the southernmost extremity of their range. Steller bulls are considerably larger than California bulls, sometimes weighing as much as a ton and measuring more than eleven feet. They have a yellowish beige pelt and a mane of coarse hair around their thick necks and shoulders which distinguishes them from their southern counterparts.

An extremely rare visitor to the channel islands is the Guadalupe fur seal, *Arctocephalus philippii townsendi*. Only a few have been seen at Point Bennett. Once a prolific species numbering in the millions, the Guadalupe fur seal was so recklessly exploited by sealers that it was believed to have become extinct by 1900. In 1928, however, two bulls were caught by fishermen at Guadalupe Island off Mexico and sent to the San Diego Zoo. Shortly afterward the fishermen had an argument, causing one of them to return to the island and slaughter the remaining members of the herd.

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## *The future seems bright for the northern fur seal*

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A few solitary Guadalupe fur seals were reported over the years, but the old breeding colony had been wiped out. Finally, in 1954 a breeding colony was found again on Guadalupe Island, hiding deep within the confines of a cave. Now there is an excellent chance that they may regain their former numbers.

These seals, particularly the younger specimens, resemble California sea lions, though their pelts are much thicker, and their ears and flippers are longer. Their fur is a grayish brown and they have light-colored whiskers around the muzzle. Bulls may attain a length of nearly six feet and weigh over 400 pounds.

Another unusual inhabitant of San Miguel is the northern or Alaskan fur seal, *Callorhinus ursinus*. Until recently it was believed that this species bred only in the north, mainly on the Pribilofs, a remote island group in the Bering Sea. The public announcement of a breeding colony on San Miguel Island galvanized government officials into action. The United States Fish and Wildlife Service sent Bob De Long to the island to study the behavior of the animals. With the timely arrival of De Long on Point Bennett, unauthorized intruders were kept away from the rookery, resulting in perhaps the most secure status enjoyed by the seals since the advent of man. Presently the National Park Service, the United States Navy, the California Department of Fish and Game, and the National Marine Fisheries Service share the vigil over the island.

At a distance, young northern fur seals also resemble California sea lions. They

are of similar size and shape; however, out of the water their long hind flippers are distinctive. These floppy appendages look like the outrageously oversized shoes of a circus clown. The northern fur seal's pelt is dark brown with lighter patches on the chest, on either side of the muzzle and under the chin. Following shedding, however, the fur is dark gray with areas of silver.

Older bulls, which sometimes reach a length of seven feet and a weight of over 600 pounds, are readily identifiable by their tremendously heavy necks and shoulders. The fur in this region is quite shaggy, often lighter than the rest of the pelt, and occasionally tinted with gray. There is a sharp line of demarcation where the fur stops and the black skin of the foreflippers begins.

All the different species of seals bear their young at special times. Elephant seals and harbor seals whelp in winter and early spring, followed by fur seals and sea lions in early summer. After the pups are born, breeding begins. To ensure that all the pups will arrive nearly simultaneously the following year, each fertilized embryo remains in the uterus until a certain period; then it becomes implanted and continues to develop. (This is called delayed implantation.)

Seals return to the same breeding grounds year after year, even if they are hundreds of miles away. Not all seals migrate, however; so for some, the distance to the breeding grounds may be short. All manage to arrive at approximately the same time, thus affording sufficient op-

portunity for reproduction after the pups are born. Seal pups are slender at birth, but have thick coats. They gain weight quickly, owing to the high nutritional value of seal milk, second only to that of whale milk. In a short time the pups double their weight, soon developing a thick layer of fat which keeps them warm and supplies them with a source of reserve food.

Seals are polygamous, although the territorial rights of bulls are defended more rigorously by some species than by others. The northern fur seal is undoubtedly the most protective of the bulls on San Miguel Island. It will jealously guard its harem, frequently going for weeks without food, staying up night and day in an unceasing flurry of fighting, breeding and maintaining its vigil. We once observed a large California sea lion bull attempt to chase off the dominant northern fur seal bull of San Miguel. Easily twice the size of the fur seal, the California sea lion lumbered up, bellowing hoarsely, until he was very close to the other bull. The fur seal struck quickly three or four times, ripping the hide of his adversary in several places. We could hear the impact of the blows across the water. The California bull uttered a startled cry and fled, with the enraged victor in hot pursuit. This same bull, at last report, had only one or two contenders of his own species on San Miguel, although the northern fur seal population has skyrocketed to well over 300.

The future seems bright for the northern fur seal. Once hunted to near extinction, it



*The harbor seal has no ears, but rather two small openings in the sides of its head.*



*Steller sea lion bull with rich yellowish fur around its neck.*



*Young northern fur seals: the pelt ends abruptly at the foreflippers.*



*California sea lion bull: here pelt blends into the foreflipper.*



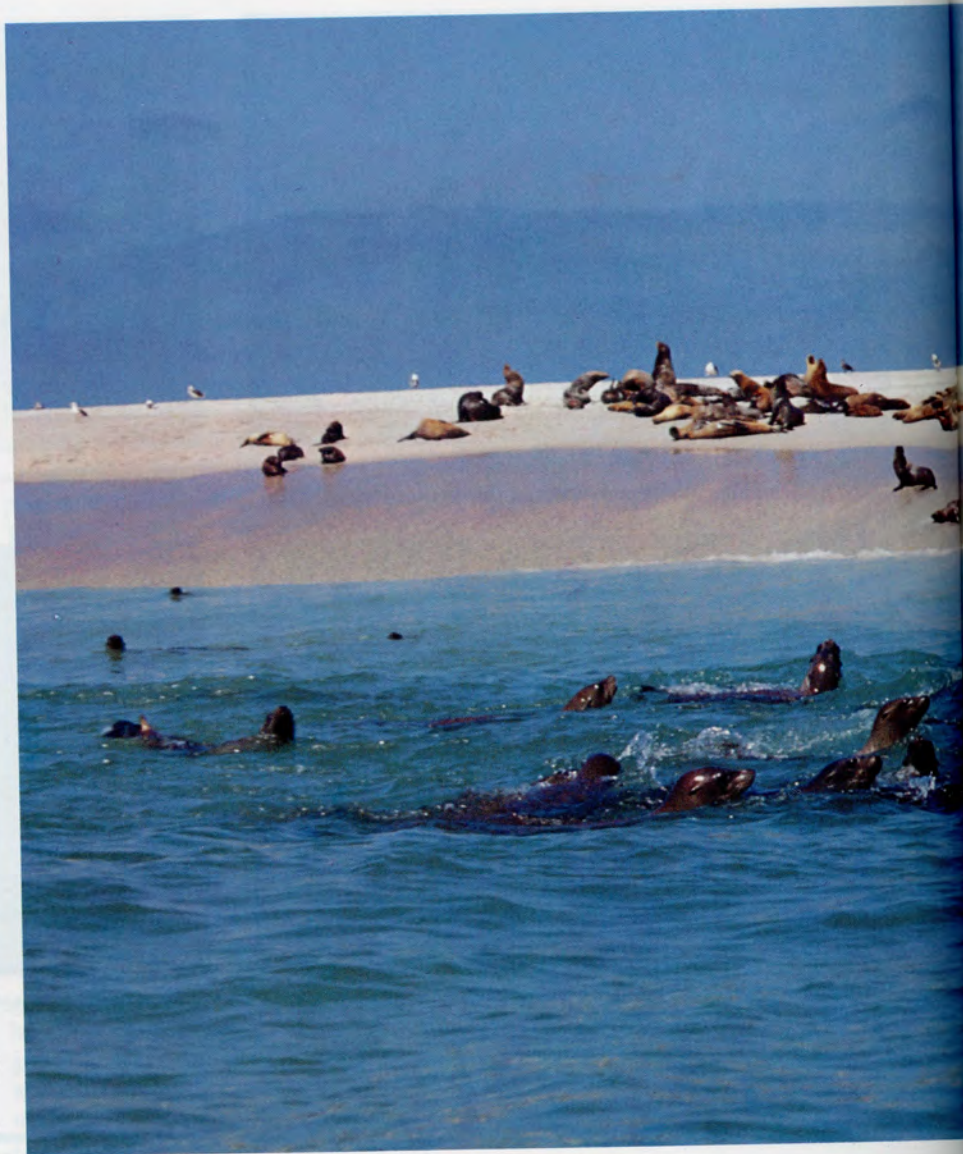
*Male northern elephant seal, can reach over sixteen feet.*

## *Elephant seals, once less than 100, now total in the thousands*

finally was protected by federal action in 1900. In 1913 a treaty was enacted banning the taking of seals in open seas and setting reasonable quotas for hunters exploiting the rookeries. Only young bulls of a certain size were allowed to be taken; they could be easily captured since the dominant older bulls kept all contenders away from their large harems. Seal populations everywhere flourished. Elephant seals, totaling less than one hundred at the turn of the century, now number in the thousands. They are steadily increasing, establishing new colonies in other regions.

Harbor seals and sea lions, being of smaller size and without valuable fur or large yields of oil, were not hunted as relentlessly as the other species. Rookeries for these animals are found in many areas along the coast and islands of North America. Certainly they are in no danger of extinction at present. Probably only the Guadalupe fur seals are still at an extremely critical stage since their population remains well below 1,000.

The National Park Service is playing a greater role in protecting the wildlife of the Santa Barbara Channel Islands, conscientiously screening naturalists, reporters and visitors to each island. With the influx of more and more people into southern California, it is hoped by many that the channel islands may ultimately be turned into a national park and that these pinnipeds may find a genuine sanctuary.



*Formerly a professional diver, Peter Howorth is now a free-lance writer and marine photographer.*

*A pod of California sea lions off Point Bennett, San Miguel.*

